Production of Instructional Materials
Chapter 5

The production of instructional materials at the high school level is the responsibility of the teacher. There are EDNET sites where there are facilities and support personnel to assist in the production of instructional materials. Some high schools have video graphic production classes. Some high schools have television/video production classes and facilities.

Remember the **Teacher Assistant Centers**. They can be put to good use in preparing your materials. Contact the Utah Education Network offices for more information about production lab sites.

Do not despair if you have NONE of these support facilities available in your school area. This is an evolving area, and facilities may be housed in your school building in the future.

5.1. Activate technical/production support team: This is the time to get them together and plan how you will work together. Before you meet with your team, you should have developed your class curriculum and expanded syllabus (see Chapter 4). Have clearly in mind what kinds of things you will need.

The building-level administrator at each EDNET site will be responsible for designating a technical site coordinator for each school. The site coordinator will assist with the EDNET equipment. They know what the equipment is capable of doing and producing. Include them on the team. You may want to include a teacher or media person who works with various computer programs and who has access to school, district, and state video libraries. This person can help you produce materials and graphics using the computer and help you locate video clips to incorporate into lessons.

5.1.1. Assign team member roles: If you are building a team, make sure you have clear ideas about the team roles and assignments. Clearly communicate these to the team members. Make a plan for projects and due dates.

5.1.2. Establish regular team meetings: Meet regularly with your team. Regularly scheduled team meetings work best. It is easier to cancel a meeting, than to add a meeting. Make sure that team meetings are productive and accomplish what you need. An agenda may be helpful. Be sure to notify all team members of all team meetings in advance.

5.1.3. Share class description, class outline, listing of all graphics and video clips, and calendar with the support team: The support team needs to know what you need. However, the support team will be able to make suggestions about what you are doing, due to the fact that they have specific training in these areas. Make a schedule for production with specific deadlines. Realistically, you will probably produce your own materials. If you don't have access to a computer or computer software to be used in producing materials, seek out the person(s) in your building who can assist you. This may be your media specialist, or it may be a business or computer class teacher.

5.1.4. Producing your own materials: You will not find an instructional package that contains all of the materials you will need. You will also want to change and adapt existing materials for EDNET use. You will be doing a lot of your own creating. Sophisticated graphics must always be prepared ahead of time. The following suggestions are not complete or extensive but are a starting point.

5.1.4.1. Producing print materials: Graphics for EDNET delivery must be readable. Many teachers make the mistake of cluttering graphics with lots of print information.

- Provide a handout to students with lots of print information and then prepare a graphic containing the key points. As you teach, follow the graphic and refer to the print information for clarification and elaboration. Make a handout and then make bullets from the handout.
- Use graphics and color to add interest. Be sure to use legible, large font styles and 24 Point size.
- Reformat existing graphics for effectiveness on television screen.

- Graphics can be saved as slides on the computer and retrieved using the control panel. (This means that you can generate slides in your classroom and transfer them to the EDNET computer.)

- Using the ELMO, you can transmit 35 mm slides or save them as graphic files on the computer.

- Using the ELMO, you can originate print, pictures, maps, graphics, objects, etc. from books, magazines, and other sources.

- Using the EDNET computer, you can access computer programs such as a computer software programs such as presentations, animations, simulations, spreadsheets, graphics, and many others.

- Using the EDNET computer, you can originate Internet information and email messages.

- Using the EDNET computer you can connect with Utah*LINK* and a whole host of services, browsers, your school's Internet Home Page, etc.

5.1.4.2. Producing video materials: You may want to produce your own video materials for origination. A good example is to videotape a lab for use in an EDNET science class where lab facilities are not available. Another example is to tape interviews with expert guests. Field trips can be videotaped for later delivery. (There are also commercial field trip videos and services.)

Acquaint yourself with the video camera before you begin taping. Always be aware of background clutter and aesthetic qualities.

NOTE: Always be aware of how the materials you are originating look to the students at the receiving sites. Production of videotaped material is VERY time consuming and requires extensive use of materials, resources and people!

5.1.5. Assemble and organize the needed instructional materials referenced to dates needed: You have worked with your production team or alone to identify, produce, and obtain the needed materials. Now you will assemble all of these materials and organize them in some usable manner. Because you will be sending the EDNET class beyond your classroom to multiple sites, you have to deal with permission to use materials.

5.1.5.1. Accessing public domain materials: Materials you develop yourself can be used in any situation you choose. There are also public domain materials that can be used in any situation: public domain print materials, graphic libraries, computer programs, and videotapes. Your school's media specialist, regional, district and State Office-level content specialists can assist you in accessing these materials. You may be able to pull public domain materials from the Internet.

5.1.5.2. Receiving permission to use materials: If you are using copyrighted materials, you must request prior permission or consider the following section.

5.1.5.3. Copyright: Copyright laws apply to products regardless of the technology used to share the product. With all the new technologies available, the copyright issue becomes even more confusing. When it's so easy to use all the new technology it is hard to understand why it's not considered legal for use in the public education classroom.

Bruwelheide (1994) provides an example of illegal use:

- The copyright laws include a fair use provision that allows others the right to make reasonable use of copyrighted materials without specific permission from an author. An action considered to be fair use in the classroom changes when the class is sent to multiple sites. Bruwelheide states that the ***perception***, then, that anything copied for educational application is considered to be fair use and thus legal is NOT correct.

- Bruwelheide makes the following suggestions for distance learning educators who are concerned about copyright:

- Contact school and district administrators for a copy of all copyright policies in place in your school and district. Determine how these apply in the EDNET classroom. If there is no policy, encourage current administration to develop policy.

- Make sure your production team knows and understands copyright laws and policies. Never hesitate to request permission; when in doubt, ask.

- Become aware of what educational copying is legitimate--much is.

- Ask yourself, am I copying this to avoid purchasing, renting, or leasing a product or item. If your answer is yes, then you are probably not within fair-use parameters.

- When using copyrighted materials, provide credit and/or acknowledge permission on all copies and transmissions.

- Legitimate classroom use may change as items are delivered to the electronic classroom.

- Seek alternative legitimate sources such as public domain material, clip art, original student materials, and copyright clearinghouses.

- Develop a simple system for requesting and tracking permission. Use form letters and logs. Include two copies of the request letter and a self-addressed envelope to speed up the process.

- In controversial situations, prepare ahead for possible consequences.

- Remember, with copyright issues, it is easier to ask permission first than it is to defend in a lawsuit.

In summary, copyright issues are not clear. If you have questions, it is wise to seek advice from school and district administration. More information will be available as distance education becomes more commonplace. Additional materials have been placed in the appendix for your use, as well as a sample copyright permission letter.

5.1.5.4. Copyright Questions/situations:

1. My school has purchased a number of video programs on 3/4" tape. The playback equipment is aging, and instructors have asked that the programs be converted to 1/2" VHS. Since this is a transfer from video to video, is this legal?

No. Copyright protects format. 3/4" and 1/2" are separate formats of the video medium, as would be a videodisc. Permission should be obtained from the copyright holder prior to converting materials from one equipment operating format to another. This response assumes that the 3/4" programs were not purchased as "masters" with duplication rights. In that case, it would be permissible to make copies in the 1/2" medium, within the limits of the purchasing license agreement.

2. A neighborhood video rental store is providing free loans for use in schools. Since the videos are not being rented, may they be used in the classroom or for an assembly?

It would be permissible to use them for instructional purposes, tied to curriculum and meeting instructional objectives. There are **two** tests that should be met to use them in an educational setting: 1. The program can be shown in the classroom normally used for instruction, and 2. It is an integral part of the curriculum. Rental videos cannot be shown for entertainment at school without paying viewer fees. The neighborhood rental store is not the copyright holder and does not have the authority to grant public performance right. who are the ones necessary in order to publicly perform copyrighted material for entertainment purposes?

3. If my school purchases or rents a videocassette, is it permissible to transmit the program on a closed-circuit system within a building?

This area is a gray zone at this time, since the law seems to prohibit such activity, while portions of the law pertaining to exemptions for educators may be interpreted more broadly so as to permit use on a closed-

circuit system. In general, it is recommended that the rights to perform on a closed-circuit system be obtained from the copyright holder, although it should be noted that a number of educational suppliers provide such rights. Careful reading of the purchase agreements and sales literature is recommended in order to be aware of privileges and restrictions.

4. May our high school tape a program from satellite for the purpose of delayed distribution throughout the school?

No, except under special circumstances. The off-air taping guidelines only permit taping from open-air broadcast sources available, without charge, in the community. Satellite programming does not fit this description, with the exception of privileges granted directly by the copyright holders to educators in regard to specific programs being offered. In general, licenses are required to tape from satellite and perform on a closed-circuit system.

5. May an instructor, in a live, direct instructional mode, utilize a digital, special effects unit to change scenes on a copyrighted video program in order to demonstrate these enhancement techniques to a class?

Yes, as long as it is a live demonstration for instructional purposes and no recording of the modifications are made. If such a recording were made, this would constitute a derivative work based upon the author's original work and would be in violation of the protection offered under the copyright law.

6. A music sound track to a copyrighted video program is modified, electronically, to add special effects so that the sound track may be used to accompany a play performance.

This would not be permissible. This would result in creating a derivative work based upon the author's original work and would also violate the public performance rights of the author.

Note: See the appendix 8.6-8.9 for the copyright law. *Section 106 of Title 17, United States Code, guidelines for teachers.*

5.2. Production and origination issues to consider: The following items are provided to enhance your awareness of the quality and aesthetic characteristics of what you are originating and your sites are seeing. This is another piece of the new mind-set. You are asking yourself how things look--including you, your classroom, visuals, videos, etc.

5.2.1. Using the camera to deliver both stationary and moving visual elements: Most complex EDNET classrooms are equipped with two cameras; both cameras can be controlled remotely and are capable of preset positions. Using the control panel, the teacher can preset camera positions for easy rotation of the camera.

- Originating stationary visual elements is straightforward. However, originating moving visual elements is more complicated. In the compressed video environment, fast or quick movements can become blurred. This is less so in the full motion environment. If you are teaching in a compressed video environment, be aware and move slowly!

- Be aware of the camera angle and your movement parameters. *The camera will not follow you unless you plan for it and someone makes it happen.* This has implications if you are teaching in front of a large group and you haven't practiced moving about the room. Some classrooms do use a wireless microphone system.

- Alert your students to keep microphones turned off unless they are being used.

- Camera angles at receiving sites should be set on the students so that the teacher has the best possible view of as many students as possible. Site facilitators or trained students can operate cameras at originating and receiving sites.

- The dynamics of group discussions change in the EDNET classroom. The primary reason is that you are dealing with multiple receiving sites and need to keep all sites involved. Continually monitor participation at each site.

- Position the teacher camera and the receiving TV monitors so they are very close together. When you "look" at your students they will "see" you looking at (or close to) them. Your site and hub coordinators will have most likely set up the classroom to facilitate proper camera positions. Discuss with them any proposed changes.

- Most originating teaching sites do have the camera capability of following the teacher. There are preset positions which the camera can be set to, or an assistant camera operator can control the "teacher camera" to follow the "action." This does take practice!

5.2.2. Camera movements and transitions: As you plan instruction, it is important that you plan possible camera movements and transitions to follow the various activities in the lesson. You may want to make a color mark in your lesson plan at each anticipated camera transition.

5.2.3. Instructor camera presence: This is a new area of consideration for most classroom teachers. You are not being asked to perform or become an entertainer; you are still a teacher, not a TV personality. Many people are intimidated by cameras, but there are some things you can do to enhance your camera presence. Consider the following:

- Be animated. Use facial expressions.
- Be involved--eacting and responding to what's happening.
- Use a variety of voice inflections.
- Pace yourself and use effective pauses.
- Videotape one of your lessons, watch yourself in private, and look for areas of improvement.
- Seek feedback from other professionals and students where appropriate. The site facilitator may be able to give you feedback.
- Relax and be yourself.
- Don't take yourself too seriously.
- When you make a mistake, simply acknowledge the mistake and move on.
- Have a sense of humor. This will lower the threat level to students and make you seem more human and approachable by your students.

5.2.4. Selection of clothing and accessories for television: You don't have to buy a new wardrobe to teach in the EDNET classroom. However, here are some suggestions:

- Avoid white, red, or dark clothing, or small checkered patterns.
- Avoid busy or heavily patterned clothing that might contrast sharply with the background.
- Set the standard of professionalism.
- Dress neatly and conservatively.
- Avoid accessories that make noise, such as large earrings, bracelets, and necklaces. These will tend to be distracting to student viewers.
- Wear clothing and jewelry that do not interfere with the lapel microphone. Avoid silk shirts or blouses as they can cause popping noises with your microphone. (Static electricity causes popping).

5.2.5. Set design: You can enhance your classroom presentation by planning ahead and using creative set designs and backdrops. For example, one teacher used an alpine background during the Winter Olympics. Be aware of background colors. Loud (florescent, black and white) colors are often distracting. Blue is a good color. You can encourage interest in your content area by using backgrounds that relate to content topics, current events, school mascots, etc.

5.2.6. Classroom setup: There are a variety of ways to set up the classroom. Many teachers prefer tables to desks. Tables allow students to share microphones and work in groups. Tables keep students together for more effective camera positioning. If there are too many students in an EDNET classroom, not all students will be able to appear on camera without moving. This may create unfavorable discipline situations. Cameras and monitors must be placed for viewing by all students. Chalkboards or whiteboards can be used; but, chalkboards cause large amounts of dust and whiteboards are too "white" for the cameras. Plan on using the ELMO overhead camera. If you need to use whiteboards discuss the matter with the Hub Technical Coordinator. Be aware that chalkboards do create unacceptable levels of dust for electronic equipment.

Air conditioning is a MUST in the EDNET classroom. Air conditioning should be installed with concern for minimizing noise. Carpeting on the walls has often been added to control unwanted sound.

5.2.7. Lighting for the EDNET classroom: The technical support personnel can help you determine if the lighting is adequate in your EDNET classroom. If you need special lighting conditions contact your building and district administrators to determine the procedures for changing the lighting. Be sure to discuss the matter with the Hub Technical Coordinator.

5.2.8. Selection, placement, and use of microphones: You will wear a microphone during the entire class period and will need one that fits your style of teaching. Most teachers use a clip-on or lavaliere microphone. Work with the technicians to determine what is available.

More critical is the placement and use of microphones with students. Make sure that all students have access to a microphone. One microphone for three students is a good arrangement. Remind students to keep microphones turned off when not in use, to not make comments that they don't want everyone to hear, and to speak clearly and not too rapidly. Guidelines for use of the microphones can be posted on the wall. Encourage microphone etiquette because good classroom management begins with careful microphone control both locally and remote.

5.2.9. The preparation and integration of camera graphics and other visual elements: Much has been said about the preparation of graphics and visuals. As you integrate graphics and visuals, remember to visualize what the students will see before you proceed. Develop a mental picture of what you are going to display. Check for readability, aesthetic presentation, and content appropriateness.

5.2.10. The use of color and texture: A variety of colors and texture create interest in the visual presentation. The same colors and textures presented over time may decrease the likelihood that students will pay attention. Use a variety to stimulate interest and attention. Be sure to visualize what you are going to present to make sure that it is appropriate and pleasing.

5.2.11. Sound: Continually check with students at all sites to make sure that sound levels are adequate. TOC personnel can make adjustments as needed. If there are continual problems with sound at a specific site, contact the technical support person at that site. It is obviously critical that students hear you. Establishing feedback and developing interactivity depend on reliable audio control at both ends of the electronic classroom.

5.2.12. Pacing of instructional elements: Build lessons which incorporate a variety of learning activities. The pacing needs to be quick enough to maintain student interest but not so fast that students become lost or unable to follow the activities. Master teachers have found that a variety of teaching methods can reinforce important concepts and allow for different learning styles.

5.2.13. Age and maturity of students: Consider carefully the age, maturity, and even the social structure of your class as you develop your distance learning activities. The variety of technologies lend themselves easily to the use of lecture, videotapes, computer simulations, interactive games, and activities . Avoid the "**talking-head syndrome."**

Build in extra time for transitions between activities. This will take longer because you have multiple sites and may have to adjust cameras. Group discussions will take longer and student interaction between sites will take longer. Be sure to take this into consideration.

5.2.14. Production team roles and responsibilities: If you are one of those lucky teachers who has access to a production team, work closely with these people to determine roles and responsibilities. Roles and responsibilities will vary from site to site; however, the goal of achieving effective and aesthetically pleasing instruction does not vary among sites. Effective use of the available personnel will aid in effective presentation. Assign roles and responsibilities based on availability of support personnel.

Students can also be trained to assist in production roles. They can move cameras, arrange classrooms, prepare set designs, and provide feedback to the teacher regarding personal appearance. This type of approach helps students feel important and that they are an integral part of the success of the class.

Notes: